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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,662

07/27/2004

Jui-Tsen Huang

12336-US-PA

4661

31561

7590

08/05/2005

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER

HARRISON, MONICA D

ART UNIT

PAPER NUMBER

2813

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/710,662	Applicant(s) HUANG, JUI-TSEN	
	Examiner Monica D. Harrison	Art Unit 2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, 8-11 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugahara (5,401,683).

1. Regarding claim 1, Sugahara discloses a stress relieving method for a wafer, steps of: comprising the providing a wafer (Figure 4, reference 1) with a dielectric layer thereon (Figure 4, reference 2), wherein the wafer is divided into a first area and a second area such that at least no circuits are formed on the dielectric layer within the first area (Figure 4, reference 3); forming a plurality of first openings within the first area (Figure 4, reference 3); and in the dielectric layer forming a first material layer over the wafer (Figure 4, reference 5), wherein the upper surface of the first material layer has pits at locations over the first openings (Figure 4, reference 15).

2. Regarding claim 2, Sugahara discloses wherein the first area comprises a scribe line.

3. Regarding claim 6, Sugahara discloses wherein the step of forming first openings in the dielectric layer within the first area further comprises forming a plurality of second openings in the first dielectric layer within the second area at the same time and then depositing

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material into the second openings to form a plurality of second material layers (Figure 7, references 3 and 4).

4. Regarding claim 8, Sugahara discloses the first opening exposes a film layer underneath the dielectric layer (Figure 7, references 3).

5. Regarding claim 9, Sugahara discloses wherein the first material layer is fabricated from a dielectric material or a metal material ((Figure 4, reference 2; *oxide*).

6. Regarding claim 10, Sugahara discloses a stress relieving method for a wafer, comprising the steps of: providing a wafer (Figure 4, reference 1) with a dielectric layer thereon (Figure 4, reference 2), wherein the wafer is divided into a first area and a second area such that no circuits are formed within the first area (Figure 3, reference 3); forming a first material layer over the wafer (Figure 4, reference 5), and removing a portion of the first material layer within the first area to form a plurality of first openings (Figure 3, reference 6).

7. Regarding claim 11, Sugahara discloses wherein the first area comprises a scribe line (Figure 3, reference 3).

8. Regarding claim 16, Sugahara discloses wherein the first opening exposes the dielectric layer (Figure 4, reference 2).

9. Regarding claim 17, Sugahara discloses wherein before forming the second dielectric layer over the wafer, further comprises: forming a plurality of second openings in the dielectric layer within the second area (Figure 8, reference 6); and depositing material into the second openings to form a plurality of second material layers (Figure 8, reference 7).

10. Regarding claim 18, Sugahara discloses wherein the first material layer is fabricated from a dielectric material or a metal material (Figure 4, reference 2; *oxide*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5, 7, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara (5,401,683) in view of Bartelink (5,189,505).

11. Sugahara discloses all above claimed subject matter except a region for forming a die (claims 3, 5, 12 and 14) and an opening not deep enough to expose a film layer underneath the dielectric layer (claim 7 and 15).

Bartelink discloses a region for forming die (Figure 3A, reference 104) and an opening not deep enough to expose a film layer underneath the dielectric layer (Figure 3A, references 358, 356, and 354).

Since Sugahara and Bartelink are both from the same field of endeavor, the purpose disclosed by Bartelink would have been recognized in the pertinent art of Sugahara.

It is obvious, at the time the invention was made, for one with ordinary skill in the art, to modify Sugahara with the teachings of Bartelink for the purpose of fabricating a multiple chip module.

12. Regarding claim 4, Sugahara discloses wherein the first area comprises a scribe line (Figure 4, reference 3).

13. Regarding claim 13, Sugahara discloses wherein the first area comprises a scribe line (Figure 4, reference 3).

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Conclusion

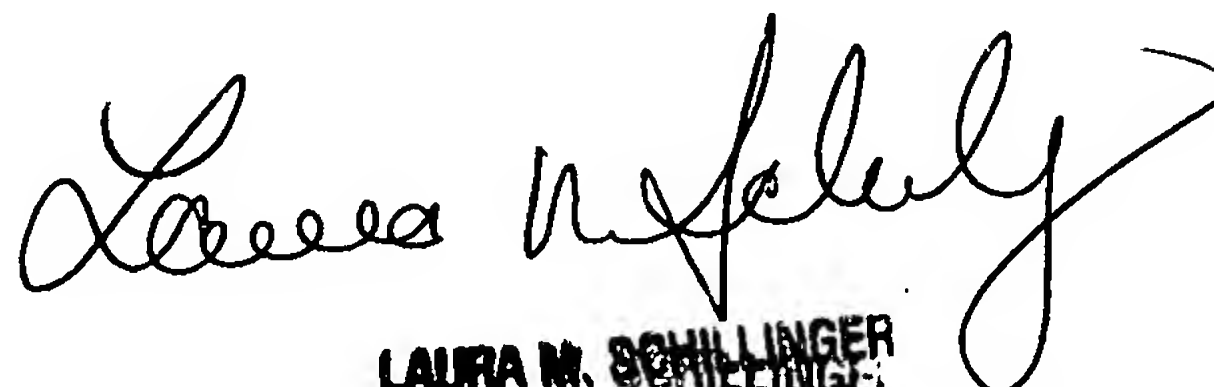
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica D. Harrison whose telephone number is 571-272-1959. The examiner can normally be reached on M-F 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on 571-272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monica D. Harrison
AU 2813

mdh
August 4, 2004


LAURA M. SCHILLINGER
PRIMARY EXAMINER